

In The Claims:

Please amend claims 17, 20, 21, 23, 24, 46, 47, and 60  
as follows:

B<sup>1</sup>  
~~17~~ 17. (Twice Amended) An ultrasonic system according to Claim 7 further comprising a computer coupled to the transmit and receive beamformers wherein the computer is programmed to (1) acquire a plurality of sets of two-dimensional image [information] data in an image plane generated by the first array upon excitation by the transmit beamformer, the first array moved between acquisition of at least some of the sets of image data (2) acquire [tracking] two-dimensional tracking data [information] in one tracking plane oriented at a non-zero angle with respect to the image plane with the second array upon excitation by the transmit beamformer, the second array moved between acquisition of at least some of the sets of tracking data; [(3) repeat steps (1) and (2) after the catheter has been moved along a direction having a component of motion in the tracking plane (4)] (3) automatically determine [the] a component of motion based on a comparison of at least a portion of the tracking [two-dimensional data information] sets acquired in step[s] (2) [and (3)], and [(5)] (4) automatically use the component of motion determined in step [(4)] (3) to register select ones of the [first] image [information] data acquired in step [(3) with the image information acquired in step] (1).

B<sup>2</sup>  
~~20~~ 20. (Twice Amended) A method for registering image information acquired from an interior region of a patient, said method comprising the steps of:

(a) inserting a catheter into a patient to image an interior region of the patient, the catheter having a body having a longitudinal axis, a circumference and a distal end

region, a first ultrasonic transducer array disposed in the distal region of the body and a second phased ultrasonic transducer array disposed in the distal end region of the body;

(b) acquiring [two-dimensional] a plurality of sets of image [information] data in an image plane with the first ultrasonic transducer array, the first ultrasonic transducer array moved between acquisition of at least some of the sets of image data;

(c) acquiring a plurality of sets of tracking [two-dimensional] data [information] in a tracking plane oriented at a non-zero angle with respect to the image plane with the second ultrasonic transducer array, the second ultrasonic transducer array moved between acquisition of at least some of the sets of tracking data;

[(d) repeating steps (b) and (c) after moving the catheter along a direction having a component of motion in the tracking plane;]

B<sup>2</sup> [(e)](d) automatically determining [the] a component of motion based on a comparison of at least a portion of the tracking [two-dimensional data information] sets acquired in step[s] (c) [and (d)]; and

[(f)](e) automatically using the component of motion determined in step [(e)](d) to register select ones of the [first] image [information] data sets acquired in step [(d) with the first image information acquired in step] (b).

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21. (Amended) The method of Claim 20<sup>15</sup> wherein the step [(e)](d) comprises the step of correlating the tracking [two-dimensional information] data sets acquired in step[s] (c) [and (d)].

B<sup>3</sup> 14 23. (Amended) The method according to Claim 20<sup>15</sup> wherein the step of moving the [linear phased and radial

phased] first and second ultrasonic transducer arrays comprises rotating the catheter.

B<sup>3</sup> 19  
24. (Amended) The method according to Claim ~~20~~ 15' wherein the step [(d)] of moving the [catheter] first and second ultrasonic transducer arrays comprises translating the catheter in a direction parallel to the longitudinal axis.

Claim 46, line 5, replace "(4)" with --(3)--.

Claim 47, line ~~3~~, replace "(4)" with --3--; and  
Line 4, replace "(4)" with --(3)--.

55 60. (Amended) The method of Claim ~~20~~ 15' comprising the steps of:

B<sup>4</sup> [(g)](f) repeating steps (b), (c), and (d) [and (e)] and accumulating the component of motion detected in step [(e)](d) to generate composite detected motion wherein the composite detected motion indicates the motion of the catheter with respect to a predetermined reference point;

[(h)](g) displaying the two-dimensional image [information] data acquired in step [(a)](b); and

[(i)](h) displaying the composite detected motion determined in step [(e)](d). ✓